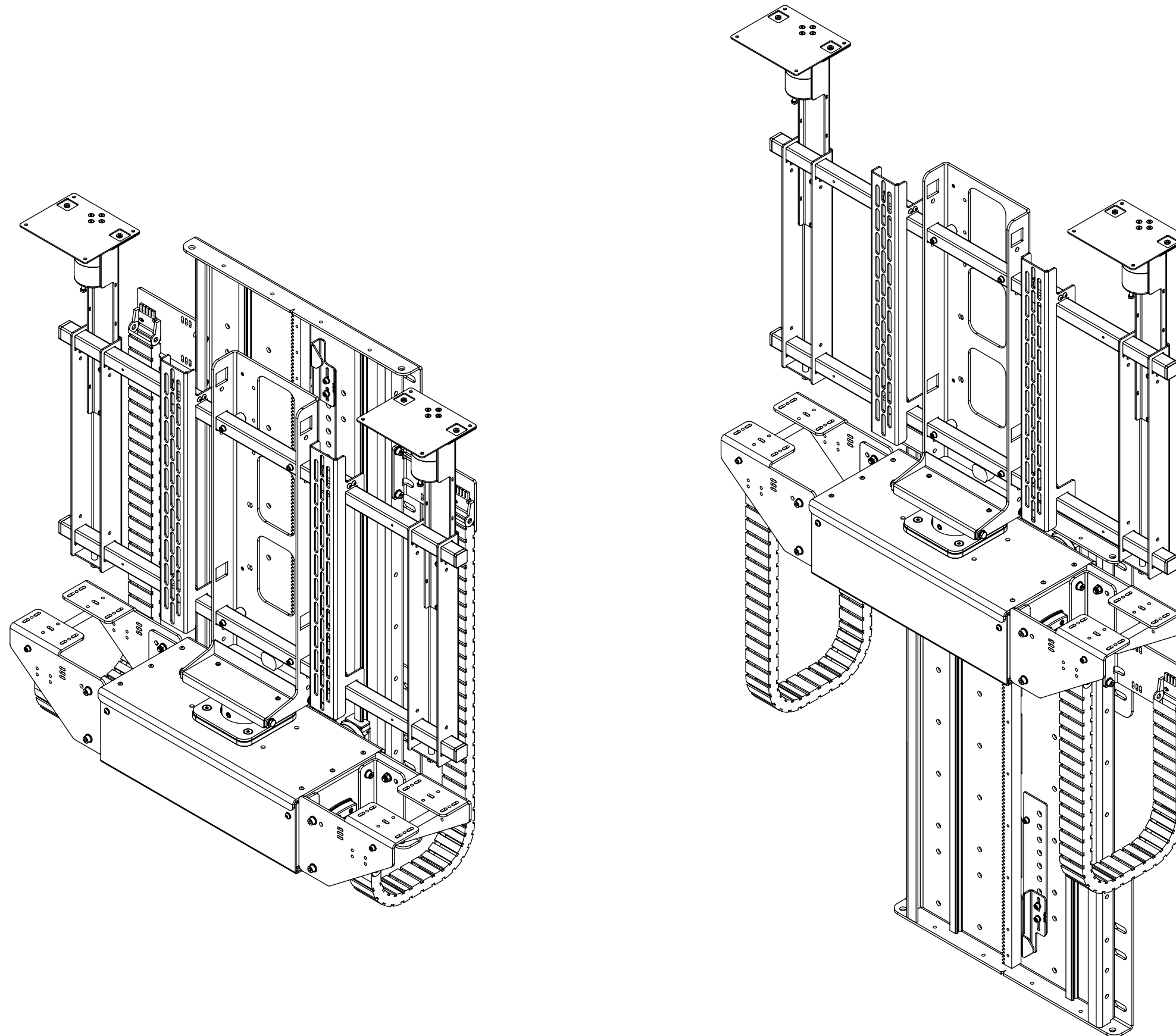


LSH-S-5-MO

MARINE OUTDOOR LIFT SYSTEM HEAVY WITH SWIVEL



future automation



LSH-S-5-MO

MARINE OUTDOOR LIFT SYSTEM HEAVY WITH SWIVEL

future automation

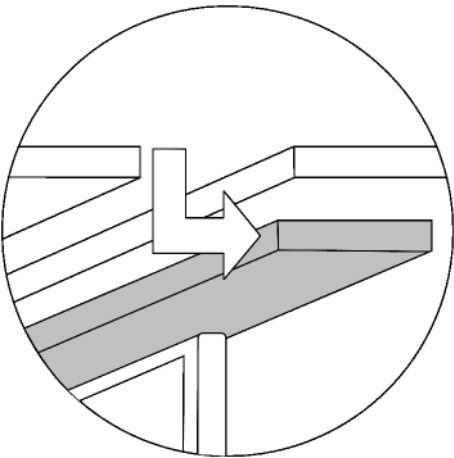
MODEL	DESCRIPTION	MIN SCREEN HEIGHT	MAX SCREEN HEIGHT
LSH-S-5-MO	Vertical Lift with Swivel for 55" Screens	680 [26 3/4"]	800 [31 1/2"]
LSH-S-6-MO	Vertical Lift with Swivel for 65" Screens	800 [31 1/2"]	920 [36 1/4"]
LSH-S-7-MO	Vertical Lift with Swivel for 75" Screens	920 [36 1/4"]	1040 [40 15/16"]
LSH-S-8-MO	Vertical Lift with Swivel for 85" Screens	1040 [40 15/16"]	1160 [45 11/16"]
LSHZ-S-9-MO	Vertical Lift with Swivel for 98" Screens	1160 [45 11/16"]	1280 [50 3/8"]
LSHZ-S-10-MO	Vertical Lift with Swivel for 105" Screens	1280 [50 3/8"]	1400 [55 1/8"]
LSHZ-S-11-MO	Vertical Lift with Swivel for 115" Screens	1400 [55 1/8"]	1520 [59 13/16"]
LSHZ-S-12-MO	Vertical Lift with Swivel for 120" Screens	1520 [59 13/16"]	1640 [64 9/16"]

ADDITIONAL MOTOR OPTIONS:

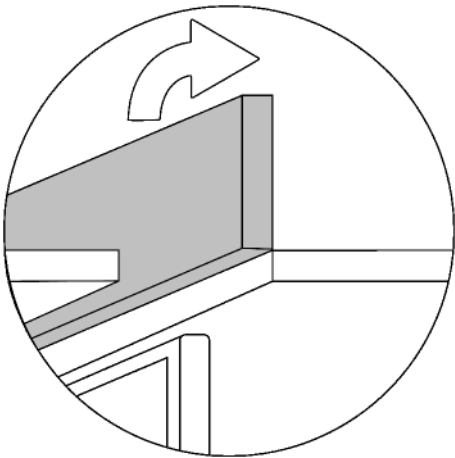


Z - SERVO MOTOR
Higher lifting capacity & faster operation.
(Not applicable to swivel)
See LSHZ-S-MO Tech

ADDITIONAL FLAP OPTIONS:

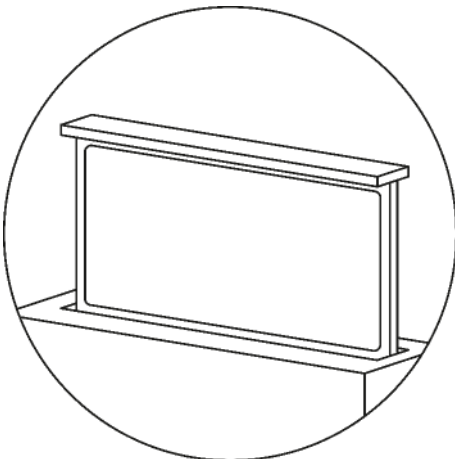


DSP - DROP & SLIDE
See LSH-DSP-MO Tech

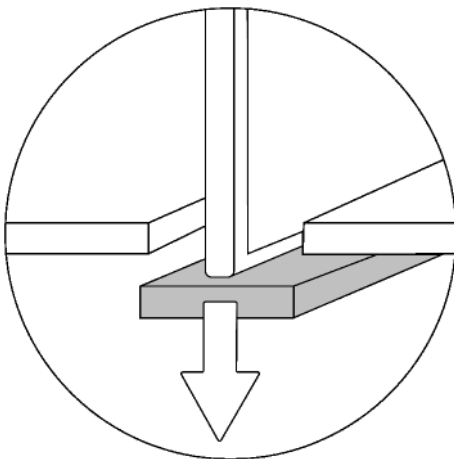


HF - HINGING FLAP
See LSH-HF-MO Tech

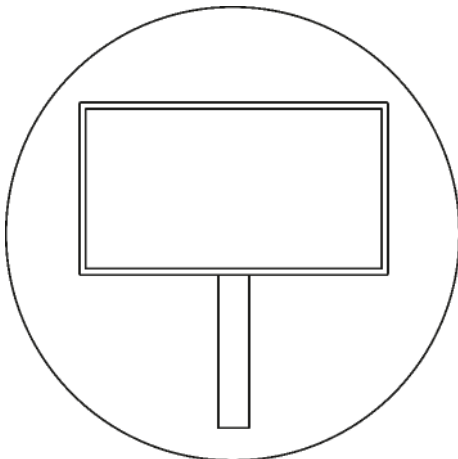
ADDITIONAL MOVEMENT OPTIONS:



STANDARD
See LSH-MO Tech



I - INVERTED
See I-LSH-MO Tech



EP - EXTENSION POLE
See LSH-S-EP-MO Tech

LSH-S-5-MO

MARINE OUTDOOR LIFT SYSTEM HEAVY WITH SWIVEL

future automation

SPECIFICATION	MEASUREMENTS
Maximum Screen Height	800mm [31 1/2"]
Minimum Screen Height	680mm [26 3/4"]
Maximum Lifting Capacity	100Kg [220lbs] (Higher Lifting Capacity Option Available, see LSHZ-S-5-MO)
Internal Cabinet Height	1110mm [43 11/16"]
Packaging Dimensions	TBC
Shipping Weight	TBC
Movement Type	Motorised
Speed	TBC
Power Supply Required	110V - 240V AC
Power Consumption	250 - 500W
Power Consumption Standby	3W
Mounting Patterns Supported	VESA 600, 400, 300 W x 600, 400, 300 H
Control Options	IR Remote, RS232, Contact Closure, RF Available
Colour Options	Custom RAL paint finishes
Package Contents	Mechanism, IR remote control
Marine Suitable	Yes
Outdoor Suitable	Yes

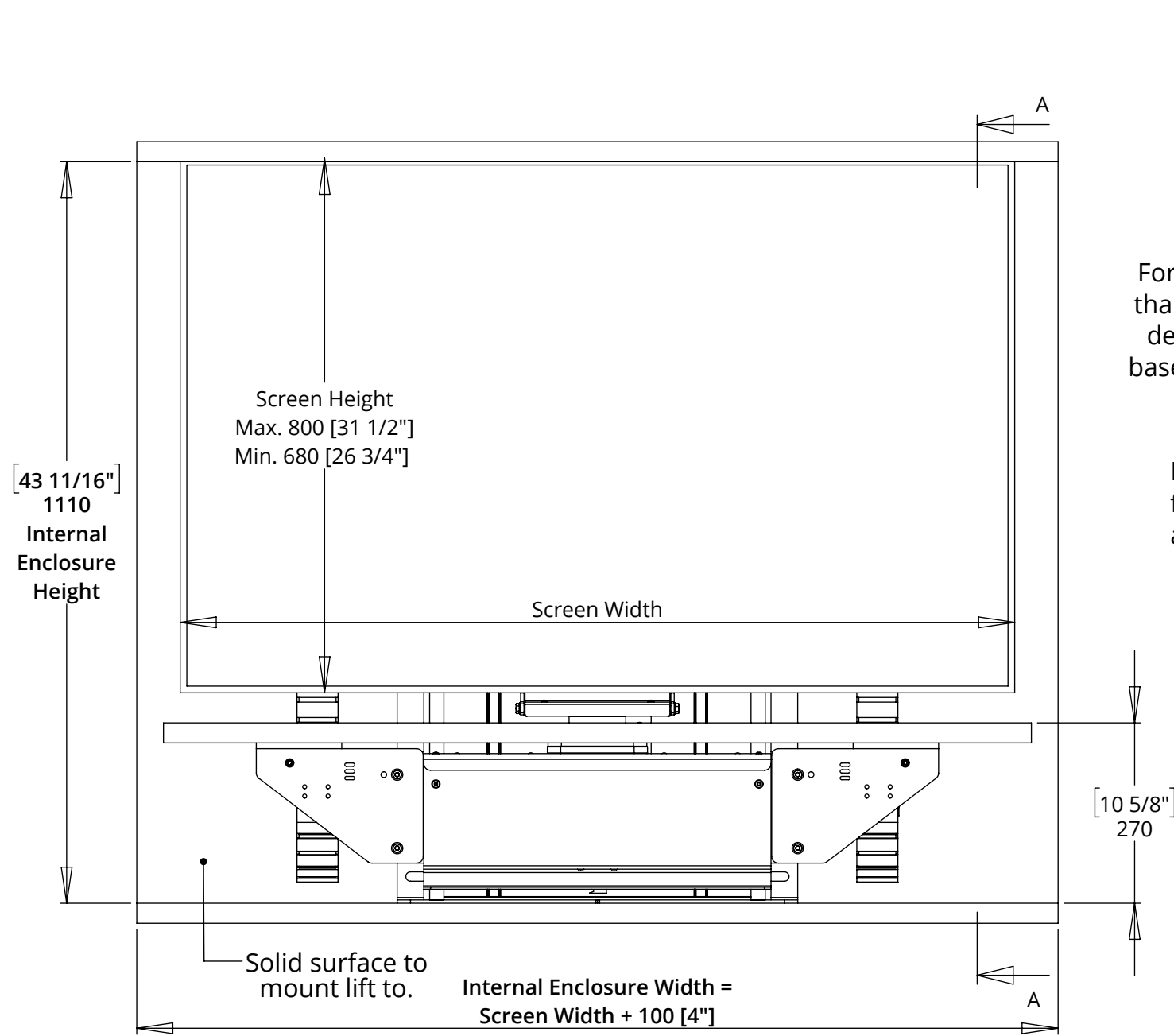
LSH-S-5-MO

MARINE OUTDOOR LIFT SYSTEM HEAVY WITH SWIVEL



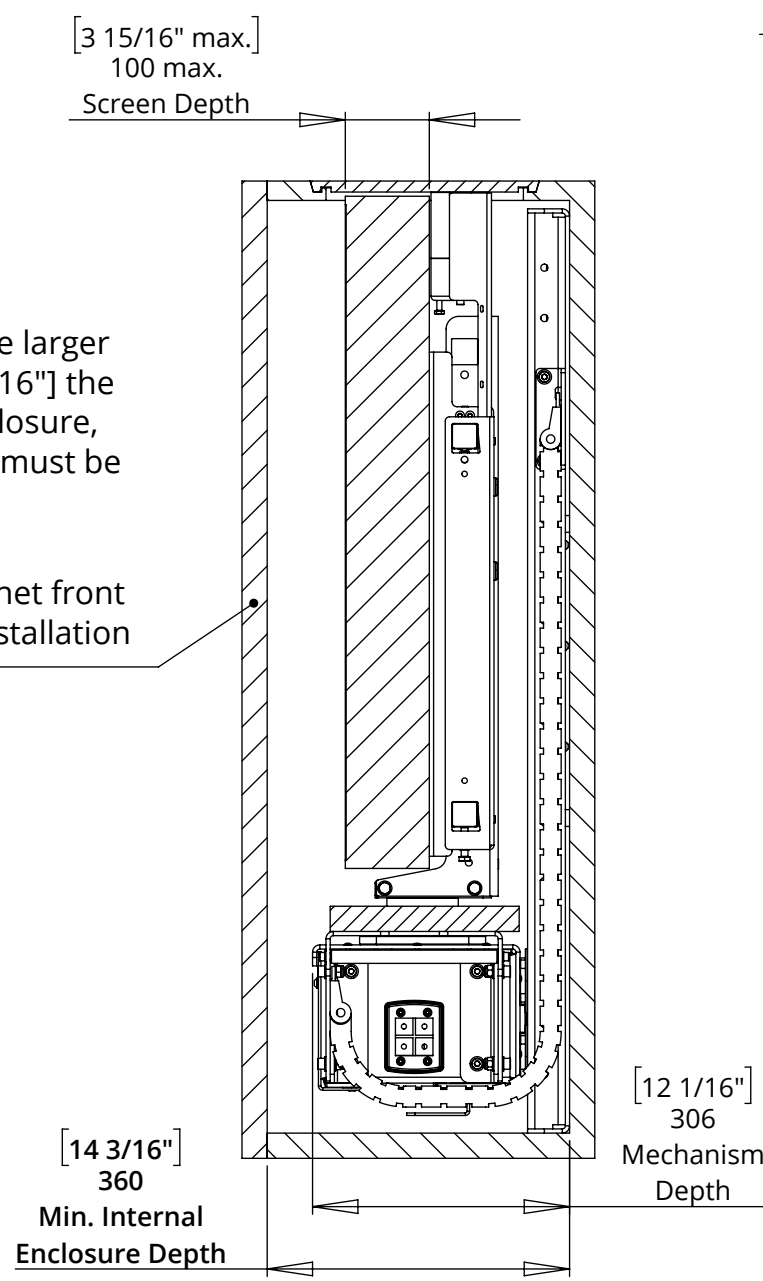
future automation

GENERAL DIMENSIONS

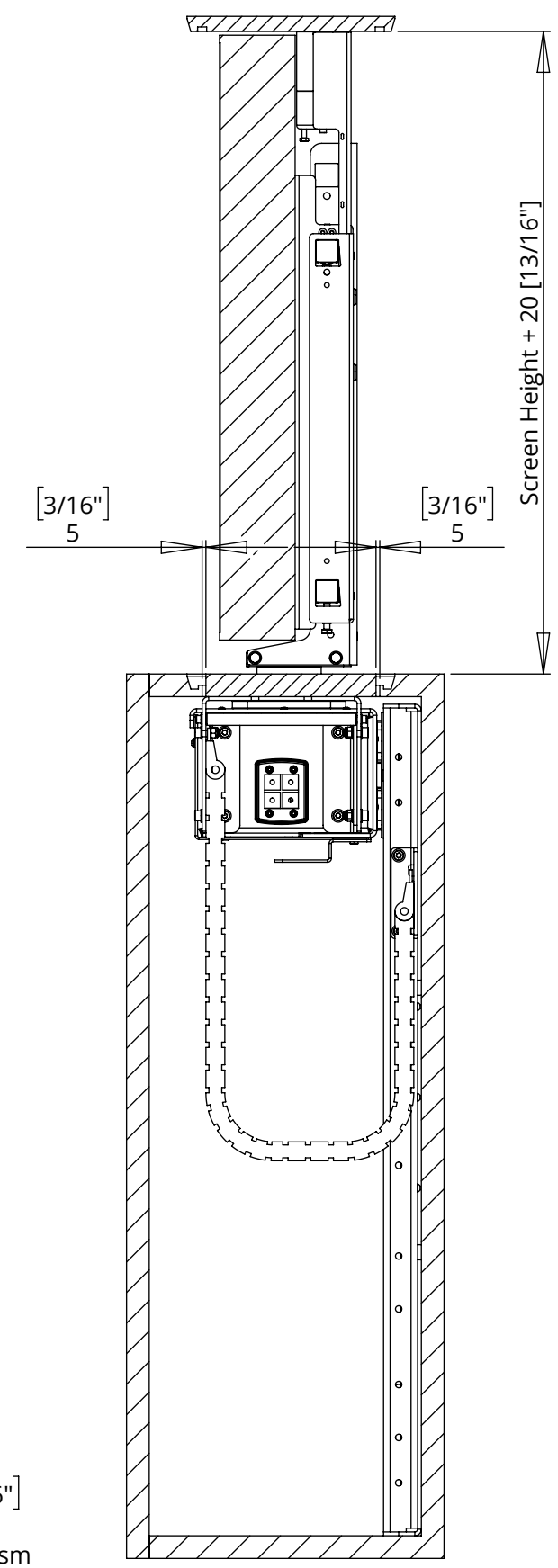


Note:
For screens that are larger than 100mm $[3 \frac{15}{16}"]$ the depths of the enclosure, base and top panel must be increased.

Removable cabinet front for access for installation and servicing.



SECTION A-A
MECH DOWN



SECTION A-A
MECH UP

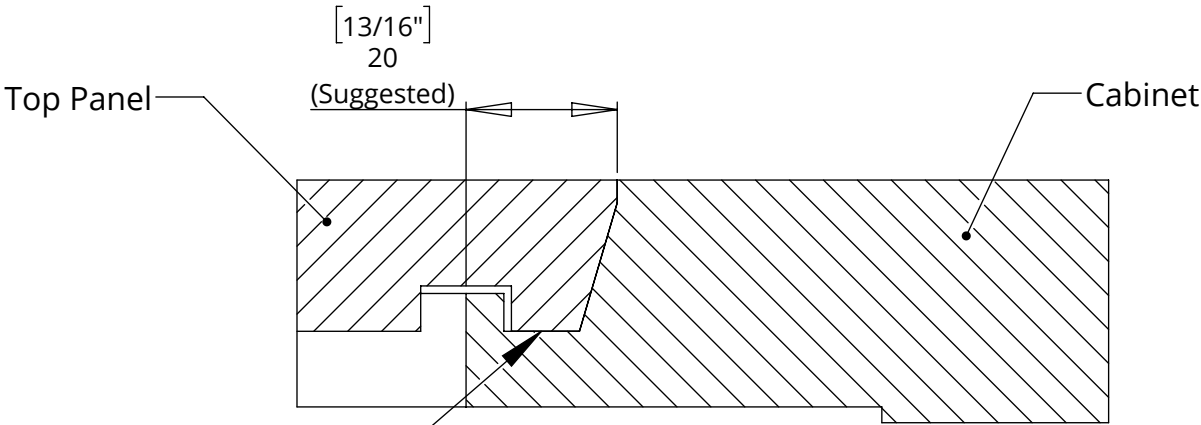
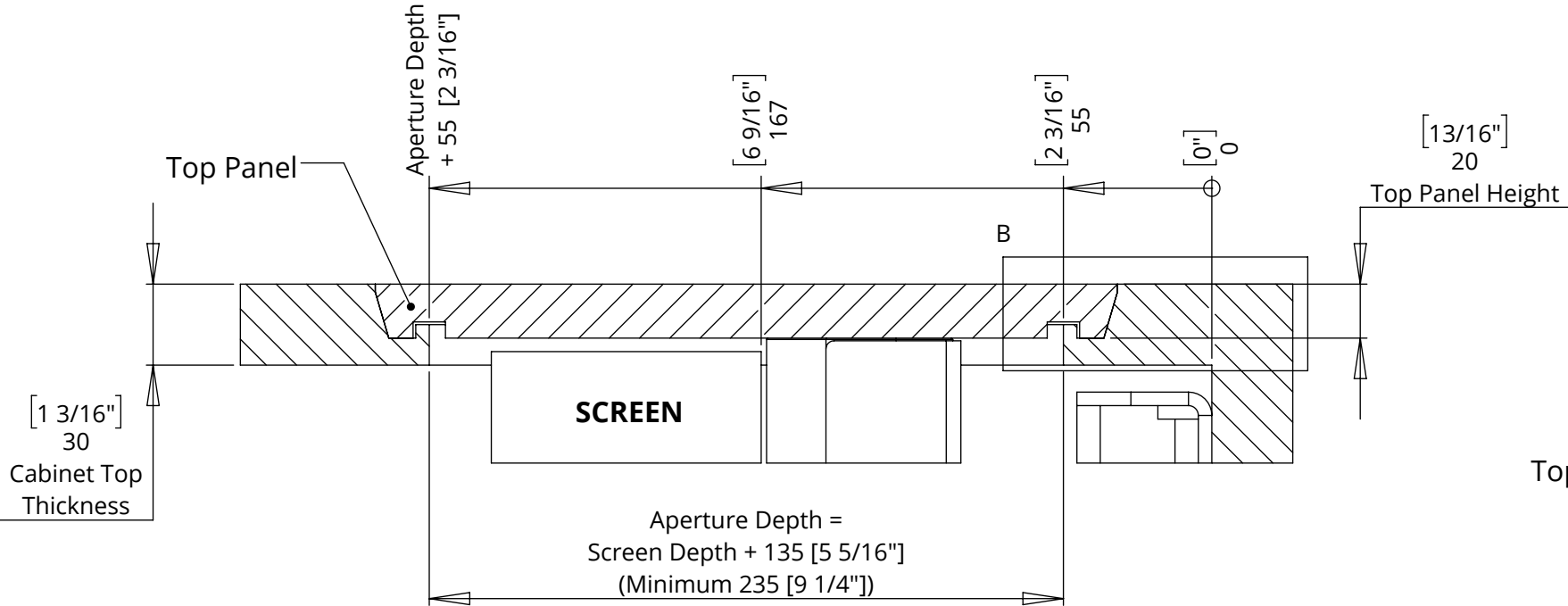
LSH-S-5-MO



future automation

MARINE OUTDOOR LIFT SYSTEM HEAVY WITH SWIVEL

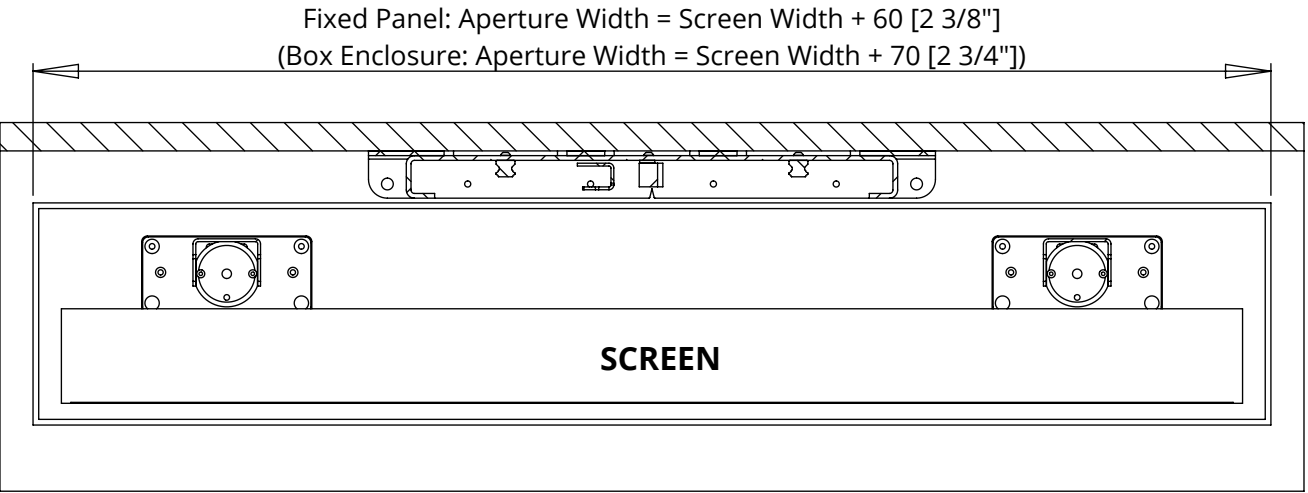
APERTURE DETAILS



Recommended channel and rubber seals to prevent water ingress. Suitable drainage also required.

DETAIL B

A suggested top panel and floor surface construction based upon the dimensions shown on sheet 6.



VIEWING SIDE

LSH-S-5-MO

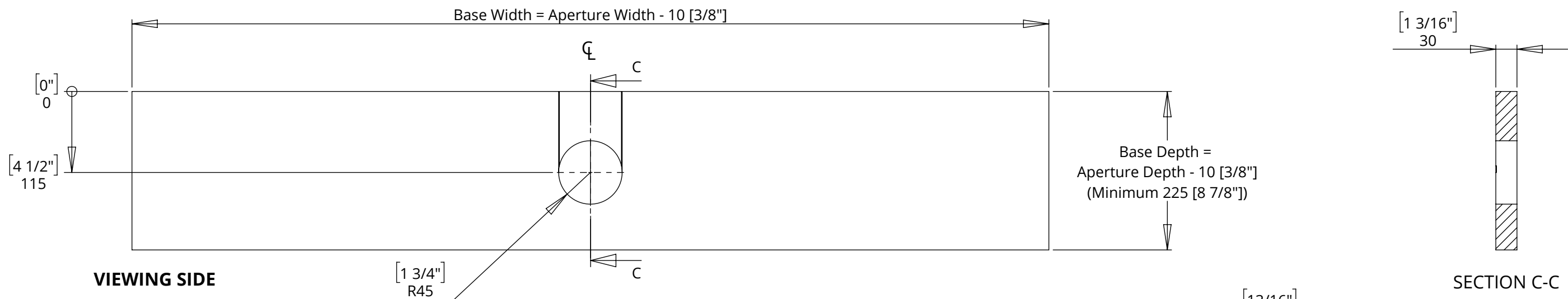
MARINE OUTDOOR LIFT SYSTEM HEAVY WITH SWIVEL



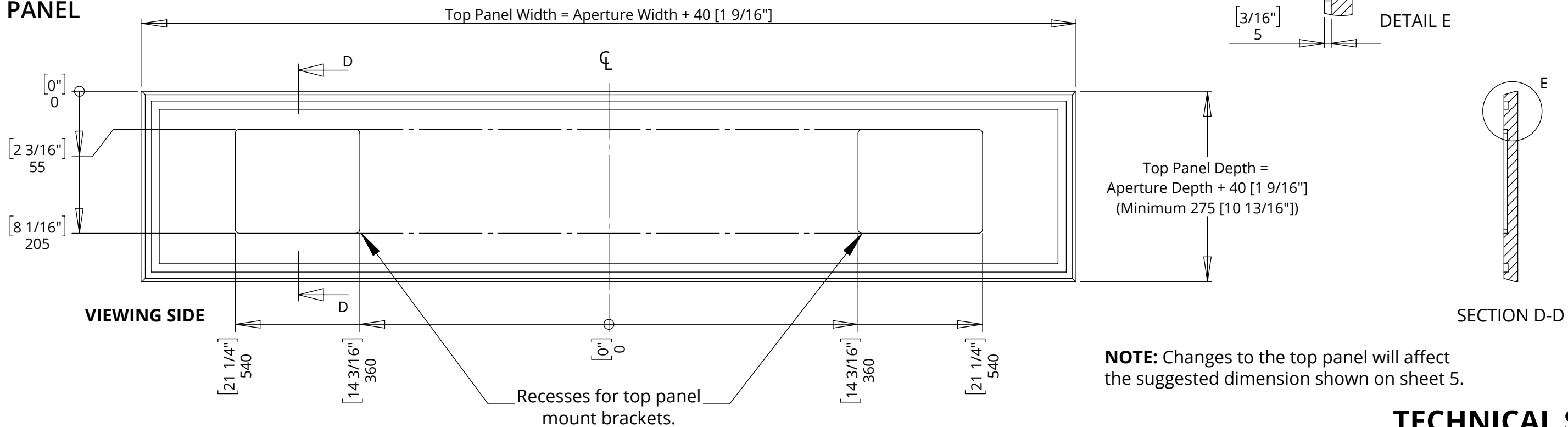
future automation

BASE PANEL AND TOP PANEL DETAILS

BASE PANEL



TOP PANEL



LSH-S-5-MO

MARINE OUTDOOR LIFT SYSTEM HEAVY WITH SWIVEL



future automation

FIXED PANEL - INTEGRATION CONSIDERATIONS



High Risk - Crushing Hazard
Crush hazard between the top panel and the cabinet top when the mechanism is closing.



Mitigation
The top panel is constructed to allow vertical movement in the presence of an obstruction, causing the mechanism to return to open again.



High Risk - Crushing Hazard
Crush hazard at the cabinet aperture when the mechanism is opening.



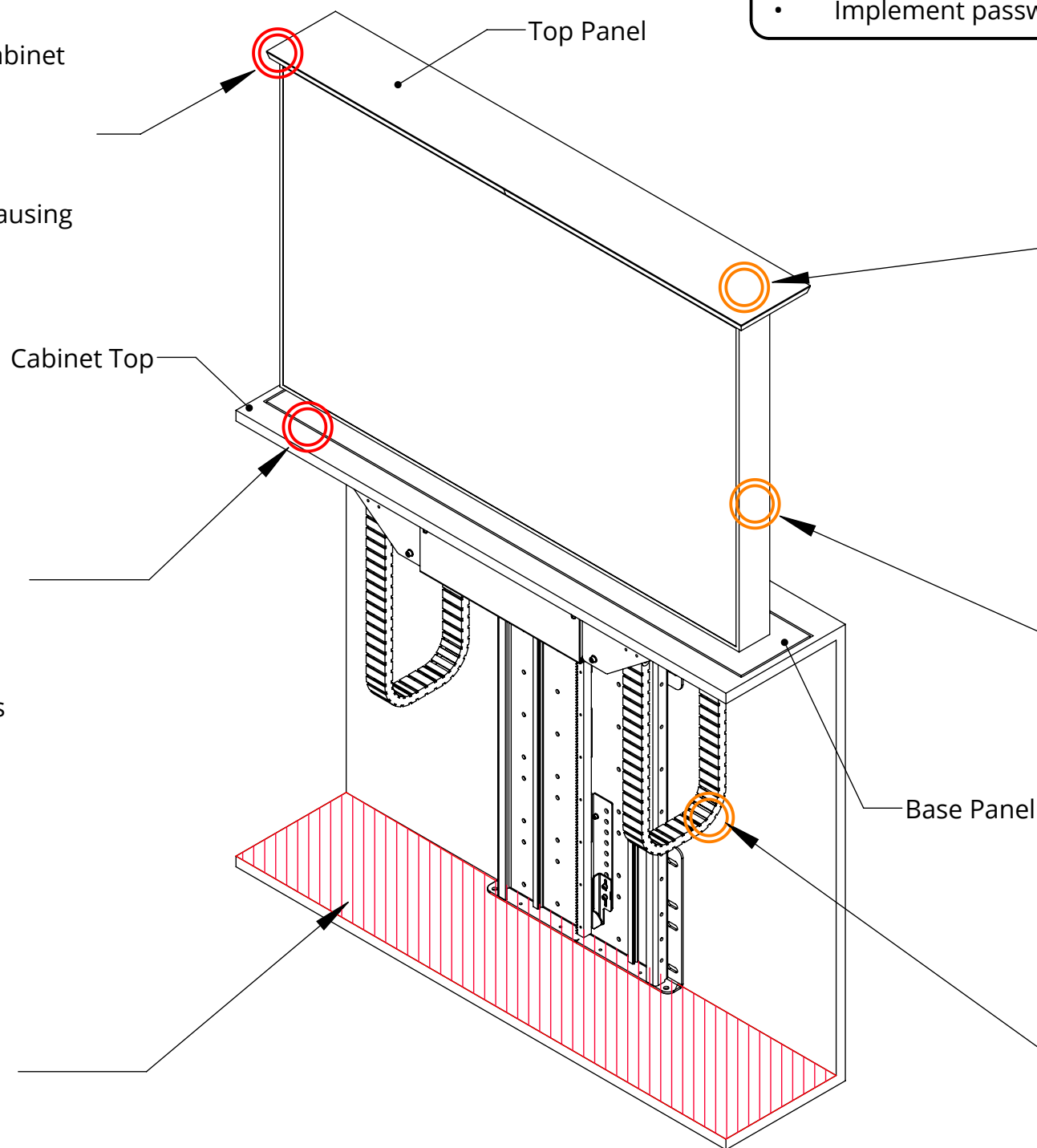
Mitigation
A Tapeswitch can be installed underneath the base panel to detect any obstructions. Scan the QR code and navigate to the Cabinet Guidelines document for further details.



High Risk - Crushing Hazard
Crush hazard below the mechanism when the mechanism is closing.



Mitigation
Ensure the area below the mechanism is kept clear at all times when the mechanism is being used. If installing or maintaining the mechanism do so with the mechanism turned off.



General Mitigations:

- Activate hold-to-run/dead-man switch operation.
- Locate controls within direct line of sight of the mechanism.
- Implement password or key switch protected operation.



Low Risk - Falling Objects Hazard
Falling object hazard if objects are left on top of the top panel.



Mitigation
See general mitigations.



Low Risk - Impact Hazard
Impact hazard around the mechanism when swivelling.



Mitigation
Set swivel limits to prevent impact with surrounding objects. See also general mitigations.



Low Risk - Crushing Hazard
Cables could be snagged if not properly managed through and around the mechanism, causing damage to the mechanism and electronics.



Mitigation
Ensure sufficient cable slack is allowed around movement joints to prevent stretching and/or damage to the cables and/or the mechanism.

The installer is responsible for conducting a site-specific risk assessment. Due to the unique conditions of each installation, Future Automation cannot provide an exhaustive list of all potential risks.
Installers must ensure that all risks associated with installation, operation, and maintenance are identified and mitigated in accordance with applicable legislation and best practice.
Further safety and servicing guidance is available at:
www.futureautomation.net/safety

CONSIDERATIONS SHEET
ISSUE 001
SHEET 7

LSH-S-5-MO

MARINE OUTDOOR LIFT SYSTEM HEAVY WITH SWIVEL



future automation

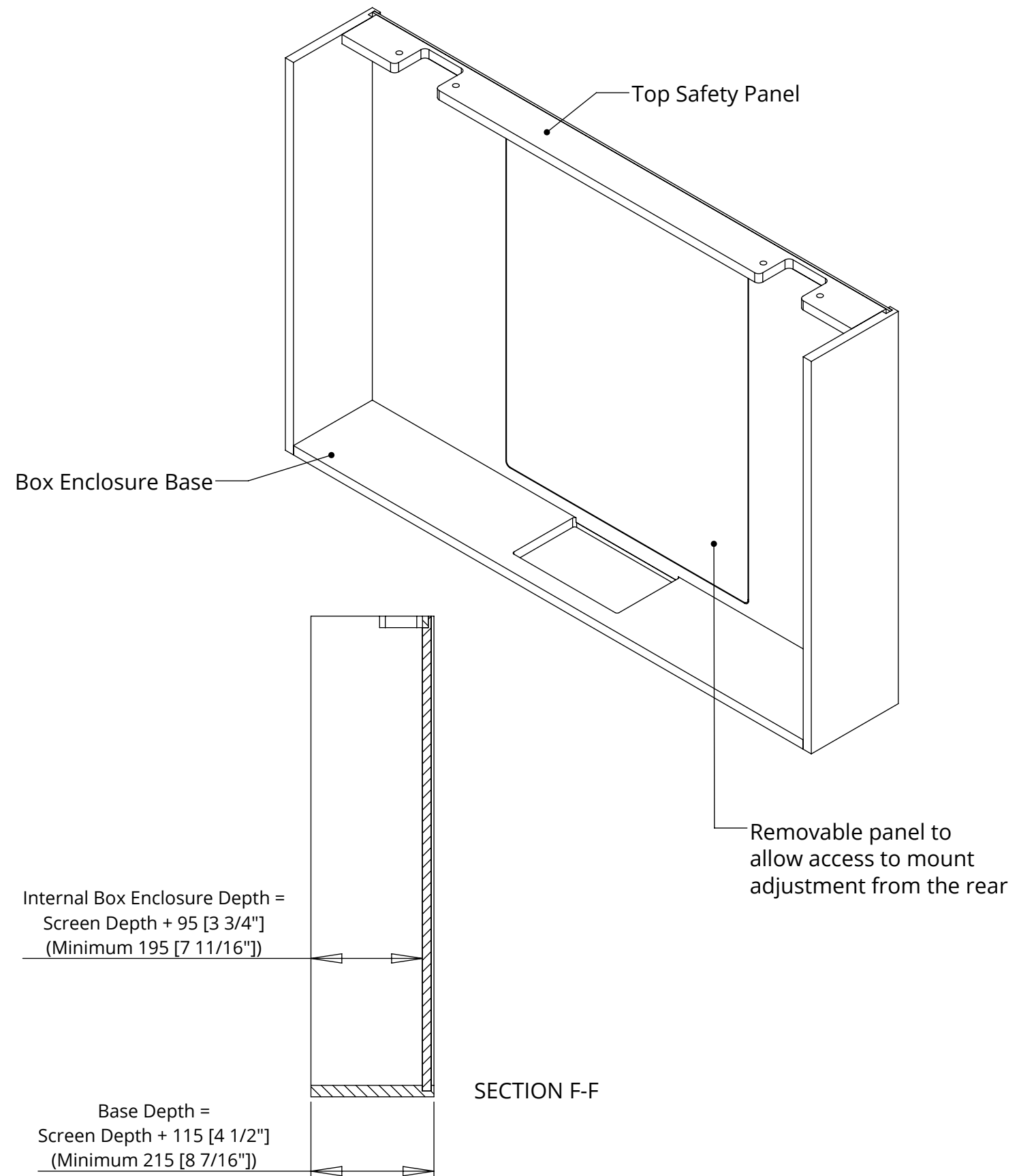
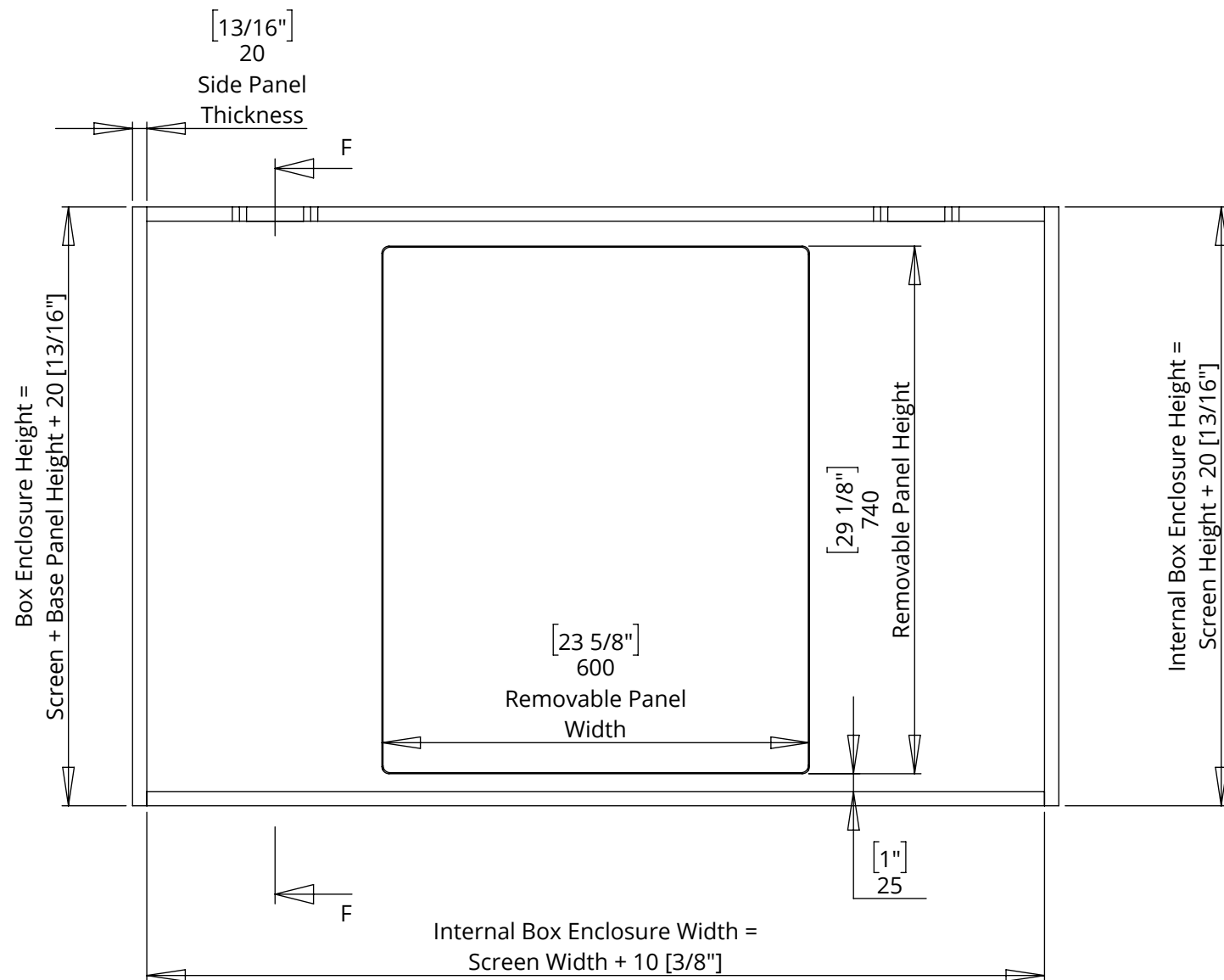
BOX ENCLOSURE DETAILS

For size specific box enclosures with further details, please see CAD.

Maximum lifting capacity: 100kg [225lbs]



Z - SERVO MOTOR
Higher lifting capacity & faster operation.
(Not applicable to swivel)
See LSHZ-S-MO Tech



LSH-S-5-MO

MARINE OUTDOOR LIFT SYSTEM HEAVY WITH SWIVEL



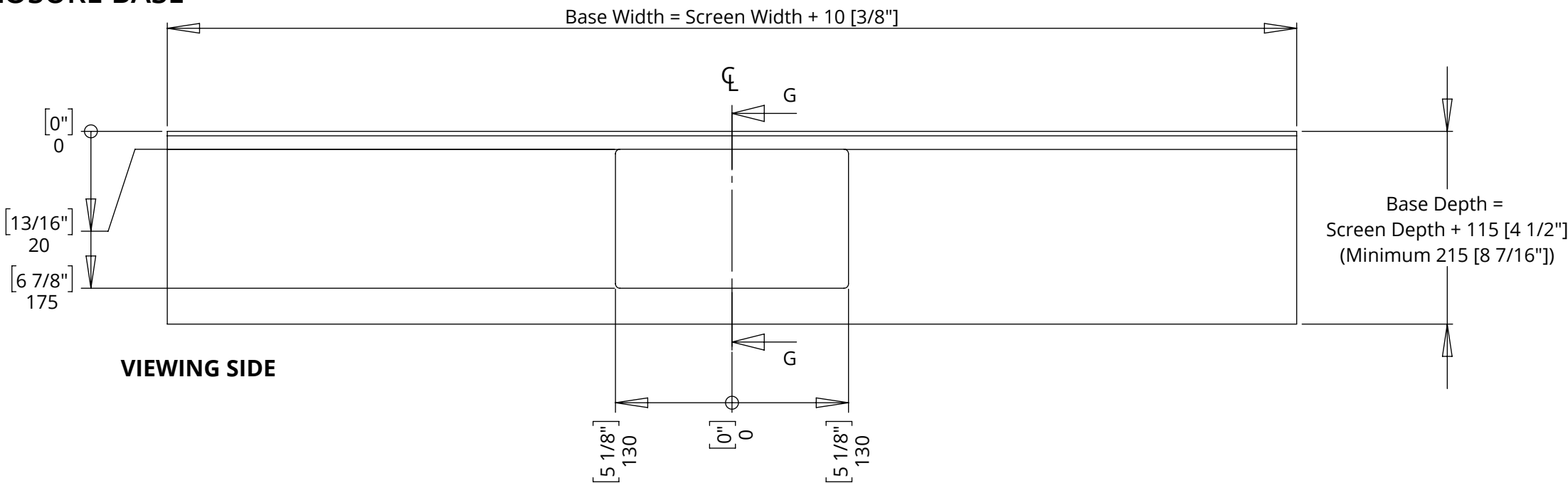
future automation

BOX ENCLOSURE - BOX ENCLOSURE BASE AND TOP SAFETY PANEL DETAILS

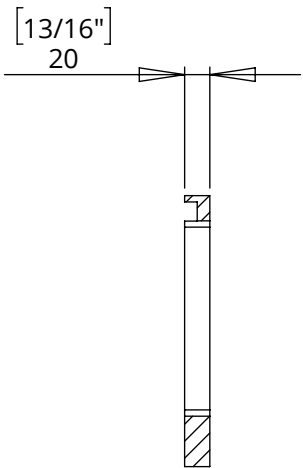
TOP PANEL

For top panel dimensions, please see sheet 6.

BOX ENCLOSURE BASE

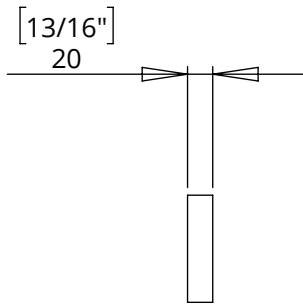
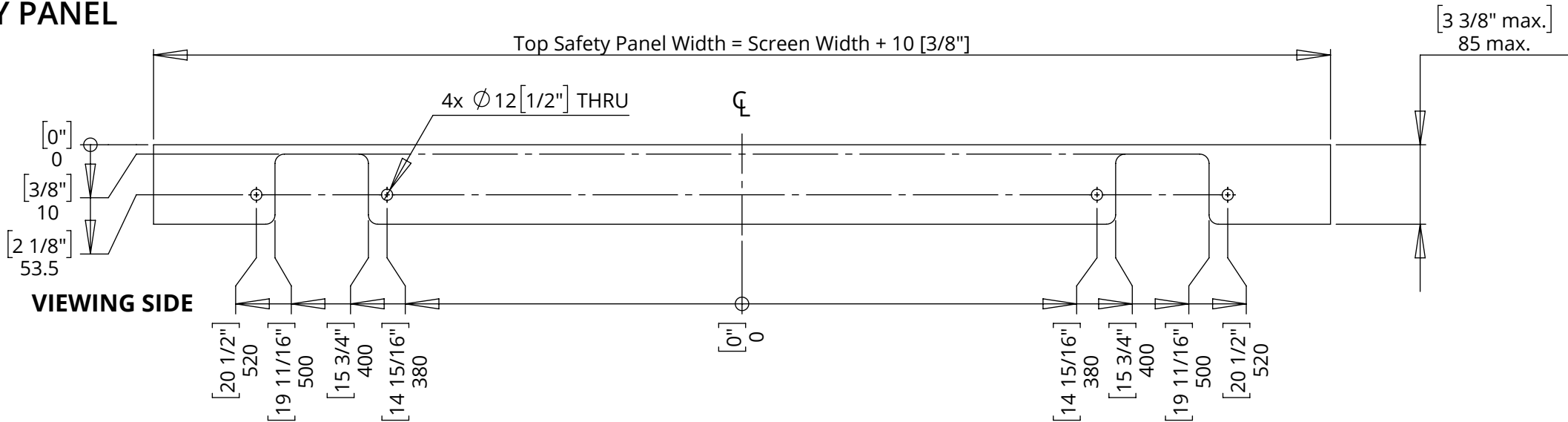


Base thickness to be equal to or larger than the cabinet thickness.



SECTION G-G

TOP SAFETY PANEL



MARINE OUTDOOR LIFT SYSTEM HEAVY WITH SWIVEL

BOX ENCLOSURE - INTEGRATION CONSIDERATIONS



High Risk - Crushing Hazard

Crush hazard between the base panel and the cabinet top as the lift closes.



Mitigation

The top panel is constructed to allow vertical movement in the presence of an obstruction, causing the mechanism to return to open again.



Low Risk - Crushing Hazard

Crush hazard at the cabinet aperture when mechanism is opening.



Mitigation

A Tapeswitch can be installed underneath the base panel to detect any obstructions. Scan the QR code and navigate to the Cabinet Safety document for further details.



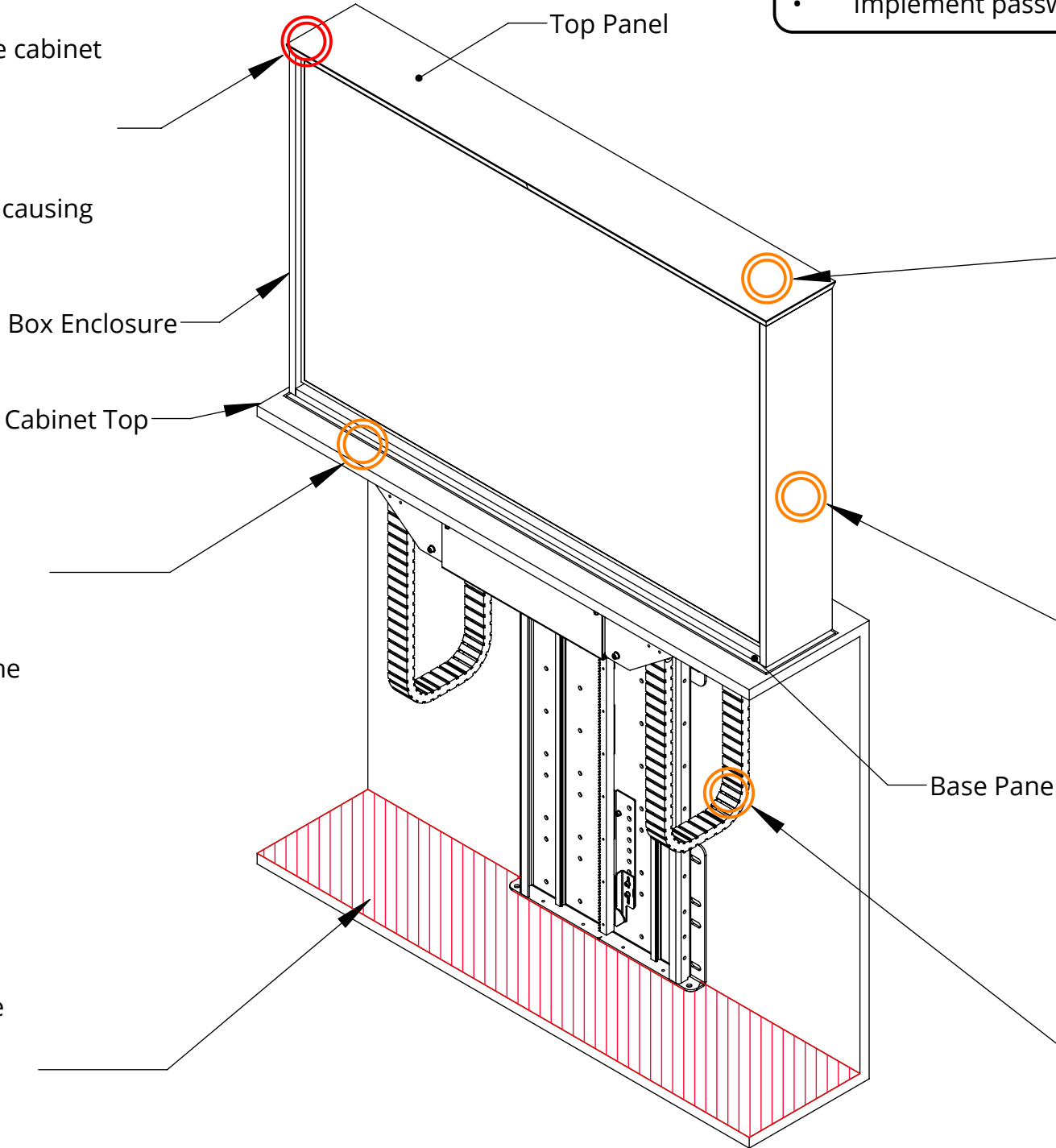
High Risk - Crushing Hazard

Crush hazard below the mechanism when the mechanism is closing.



Mitigation

Ensure the area below the mechanism is kept clear at all times when the mechanism is being used. If installing or maintaining the mechanism do so with the mechanism turned off.



General Mitigations:

- Activate hold-to-run/dead-man switch operation.
- Locate controls within direct line of sight of the mechanism.
- Implement password or key switch protected operation.



Low Risk - Falling Objects Hazard

Falling object hazard if objects are left on top of the top panel.



Mitigation

See general mitigations.



Low Risk - Impact Hazard

Impact hazard around the mechanism when swivelling.



Mitigation

Set swivel limits to prevent impact with surrounding objects. See also general mitigations.



Low Risk - Crushing Hazard

Cables could be snagged if not properly managed through and around the mechanism, causing damage to the mechanism and electronics.



Mitigation

Ensure sufficient cable slack is allowed around movement joints to prevent stretching and/or damage to the cables and/or the mechanism.

The installer is responsible for conducting a site-specific risk assessment. Due to the unique conditions of each installation, Future Automation cannot provide an exhaustive list of all potential risks. Installers must ensure that all risks associated with installation, operation, and maintenance are identified and mitigated in accordance with applicable legislation and best practice. Further safety and servicing guidance is available at: www.futureautomation.net/safety

LSH-S-5-MO

MARINE OUTDOOR LIFT SYSTEM HEAVY WITH SWIVEL

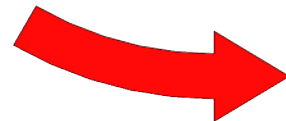
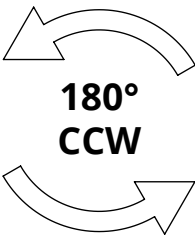
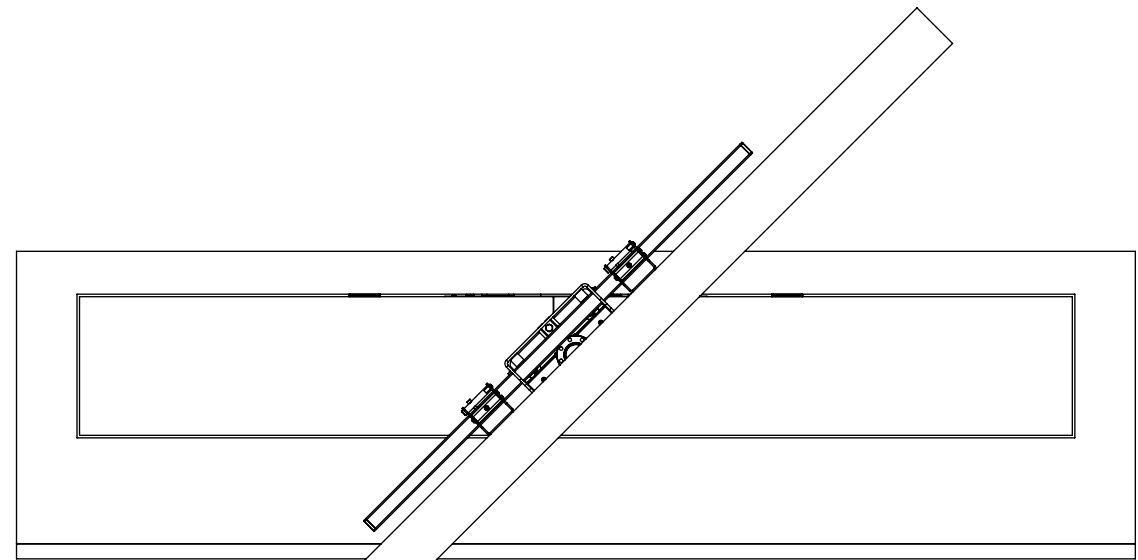


future automation

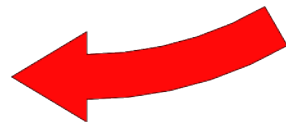
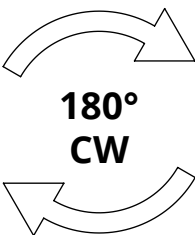
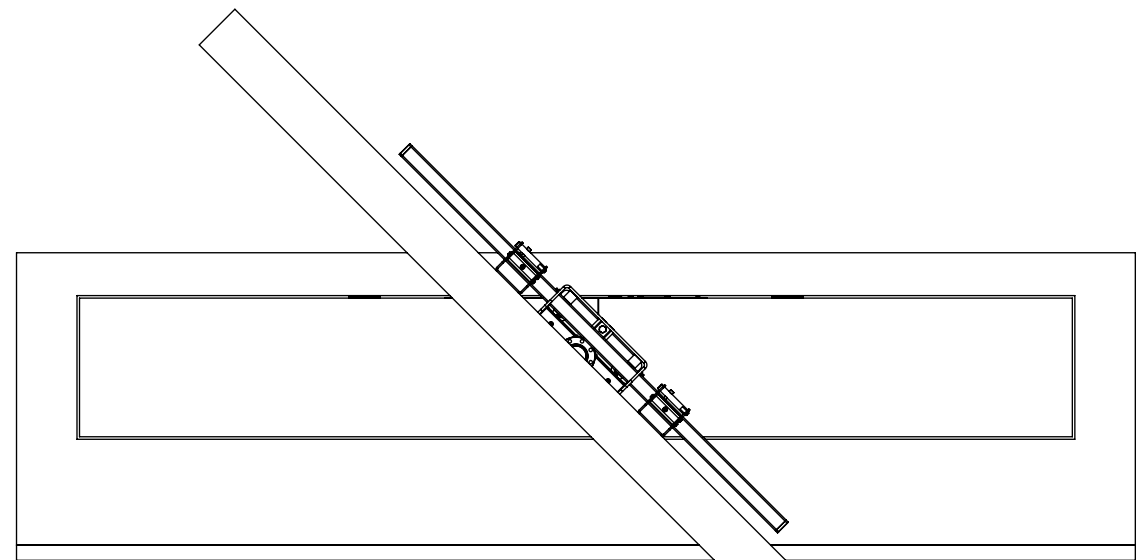
SWIVEL DETAILS

The LSH-S can swivel a full 180° in both the clockwise and counterclockwise direction.

Top Panel
hidden for
clarity



Top Panel
hidden for
clarity



LSH-S-5-MO

MARINE OUTDOOR LIFT SYSTEM HEAVY WITH SWIVEL



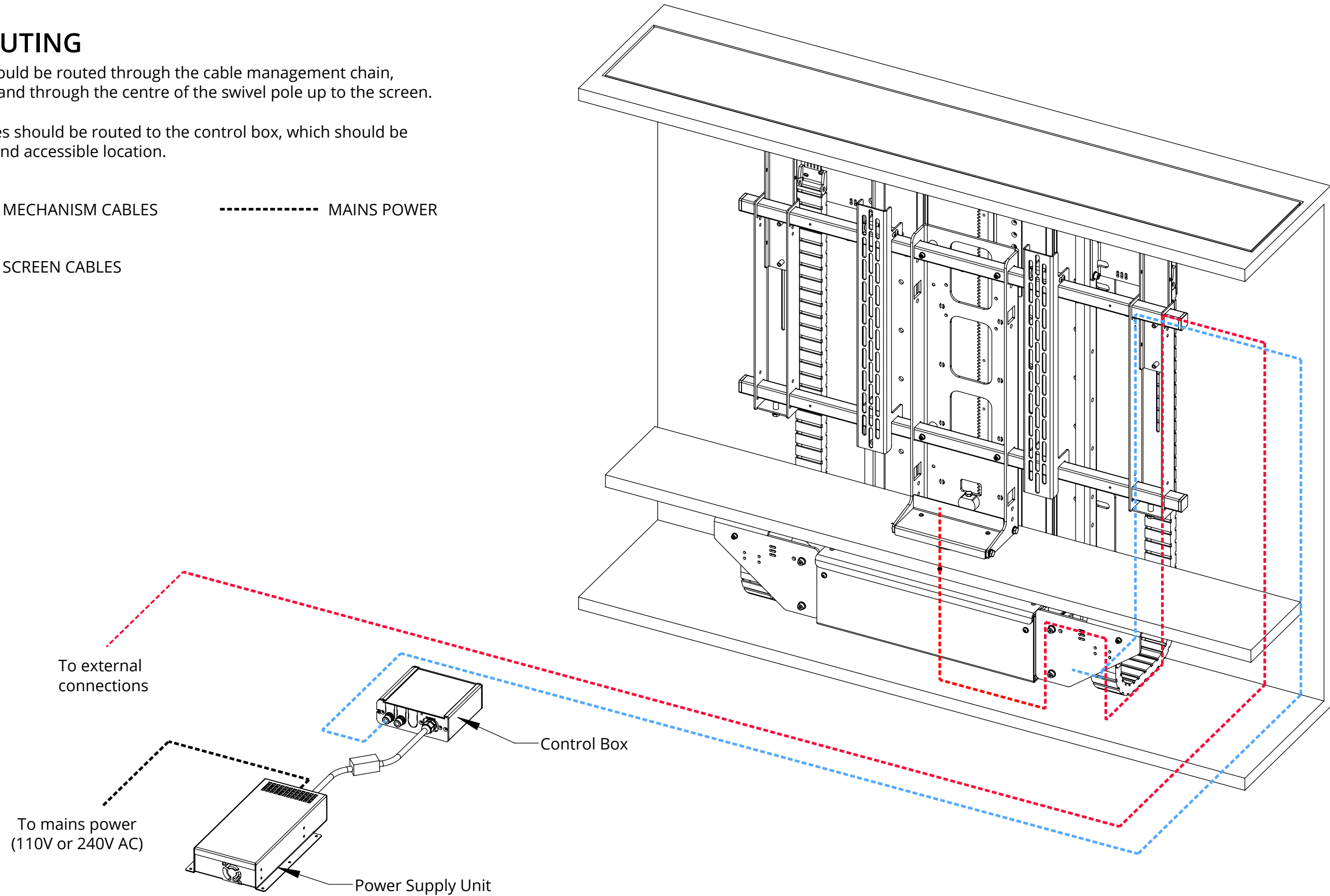
future automation

CABLE ROUTING

Screen cables should be routed through the cable management chain, under the beam and through the centre of the swivel pole up to the screen.

Mechanism cables should be routed to the control box, which should be stored in a safe and accessible location.

- MECHANISM CABLES
- MAINS POWER
- SCREEN CABLES



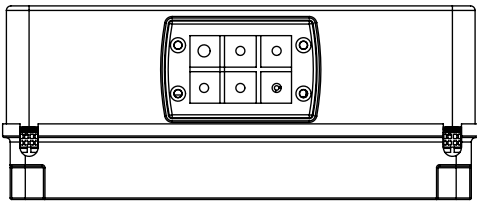
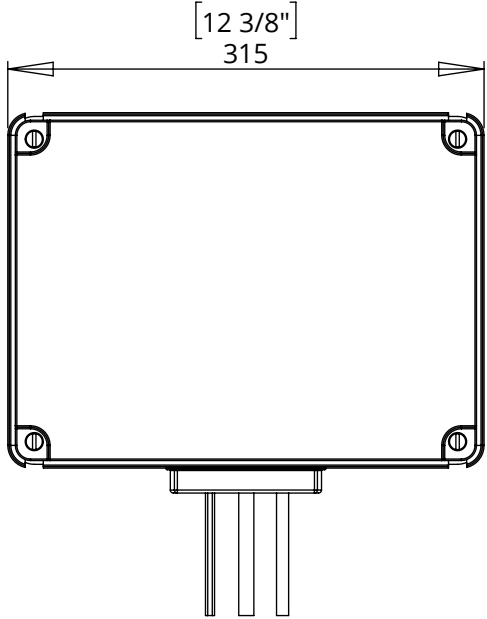
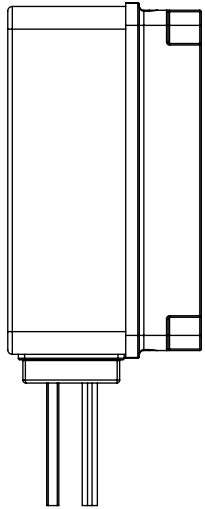
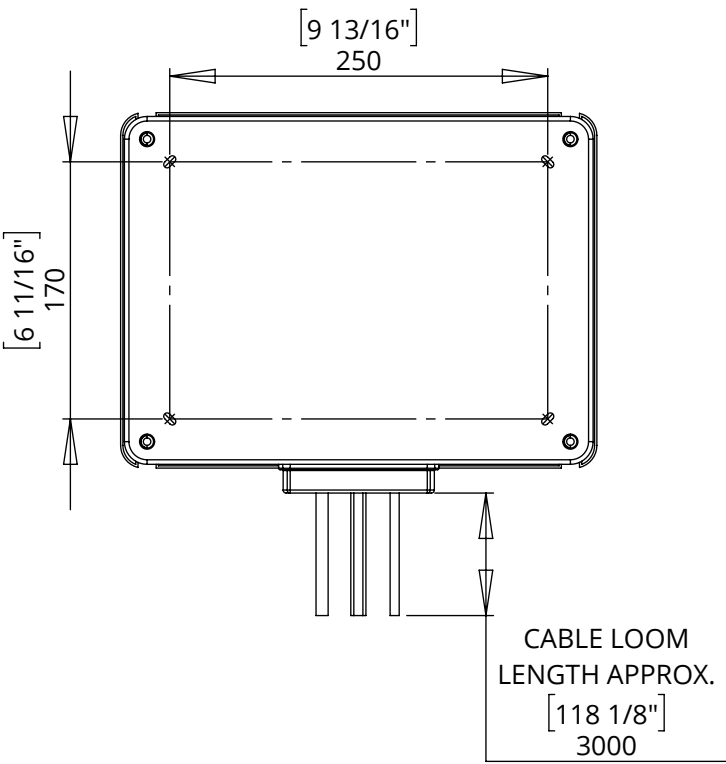
LSH-S-5-MO

MARINE OUTDOOR LIFT SYSTEM HEAVY WITH SWIVEL



future automation

CONTROL BOX DETAILS



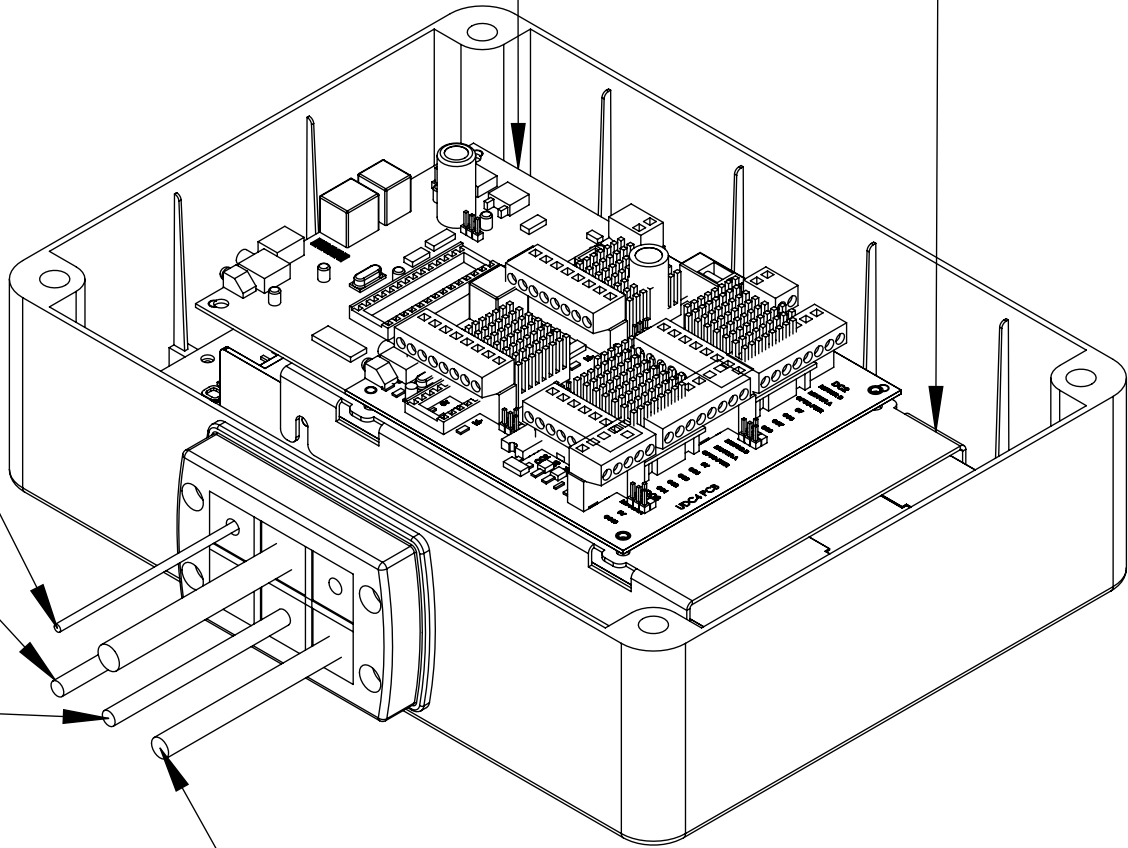
FUTURE AUTOMATION
UDC3 CONTROL BOARD

POWER SUPPLY UNIT
INPUT = 110V (6A) OR 240V (3A) AC MAINS
OUTPUT = 24V DC, 21A

3 CORE CABLE
IR RECEIVER
3mm [0.12"] dia.
EU SPEC: 0.12mm²
US SPEC: 25AWG

3 CORE CABLE
MAINS SUPPLY
6mm [0.25"] dia.
EU SPEC: 0.75mm²
US SPEC: 18AWG

3 CORE CABLE
LIFTING BEAM SWITCH LIMITS
6mm [0.25"] dia.
EU SPEC: 0.5mm²
US SPEC: 20AWG



2 CORE CABLE
LIFTING BEAM MOTOR
10mm [0.4"] dia.
EU SPEC: 1.5mm²
US SPEC: 16AWG

NOTES

- ENCLOSURE AND CABLE GLANDS RATED TO IP56.
- ENCLOSURE AND LID FIXINGS ALL MADE FROM GEWISS GW PLAST 75.
- ENCLOSURE MATERIAL SUITABLE FOR TEMPERATURES +60 °C TO -25 °C.
- POWER SUPPLY UNIT (PSU) WILL ALLOW 110V OR 240V AC INPUT. THE SAME PSU IS USED FOR EU OR US MAINS SUPPLIES.
- OTHER THAN CONTROL CABLES, ALL CABLES TERMINATE AT CONTROL BOARD VIA STANDARD PHOENIX CONNECTORS.
- CABLE LOOM LENGTH SUPPLIED AT APPROX. 3m [118"]. LOOM CAN BE EXTENDED UP TO MAXIMUM OF APPROX. 10m [400"].
- MINIMUM CABLE BEND RADIUS 25mm [1"].

UK +44 (0) 1438 833577 US +1 (603) 742 9181

www.FUTUREAUTOMATION.NET

TECHNICAL SHEET

ISSUE 001
SHEET 13